REAR ENGINE RIDER

MOWER DRIVE BELT

SAFETY WARNING: To avoid personal injury, before making any adjustments always turn engine off and remove key from the ignition switch. Wait for all movement to stop.

ADJUSTMENT

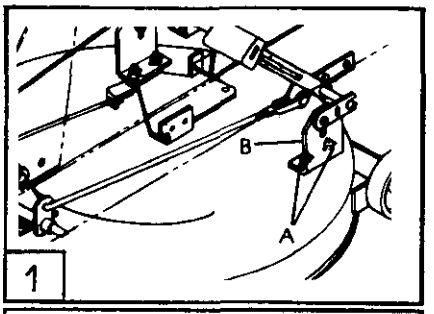
- If belt begins to slip under load the mower drive belt needs to be tightened.
- Move mower drive lever to OFF position.

1 Loosen the hex nuts on all three of the mower deck hanger brackets.

NOTE: For models so equipped, by removing plastic tray in front of operator's seat, an easy access is made to front hanger bracket.

- Increase mower drive belt tension by pulling one side of mower deck as far as possible toward front of rear engine rider; then tighten hanger bracket hex nuts on that side. Repeat for other side of mower deck, securing the front hanger bracket last.

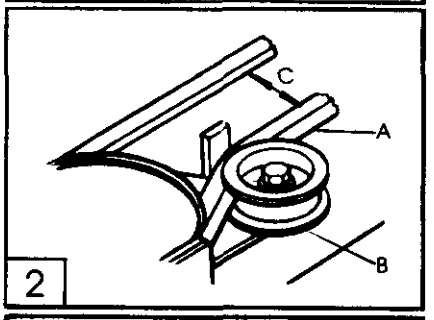
A Loosen These Hex Nuts
B Hanger Brackets



2 Check for correct adjustment by measuring between edges of belt at idler pulley. There should be a minimum clearance of 1½" when mower drive lever is engaged.

NOTE: Whenever mower deck has been repositioned forward or back, the mower drive cable must be checked and adjusted as necessary. Refer to the ADJUSTMENT AND SERVICING section ("Mower Drive Cable").

A Belt
B Idler Pulley
C 1½"

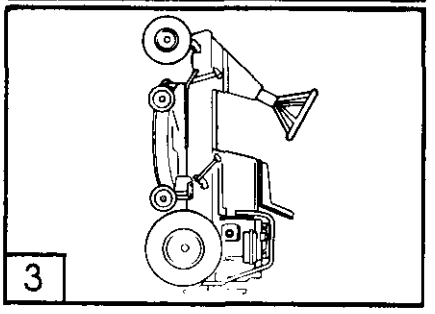


REPLACEMENT

- In the event that belt is slipping or breakage occurs, replacement is necessary. Order the manufacturer's authorized part to ensure a belt that will meet specific service requirements.
- Apply parking brake.
- Move mower drive lever to OFF position.

3 Lift front of rear engine rider to position it on its rear support bars.

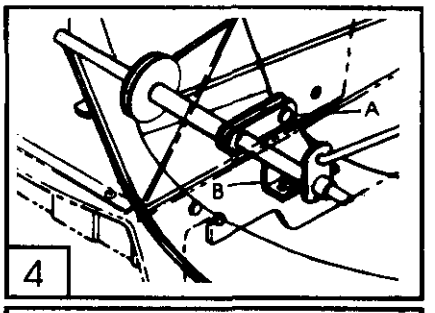
NOTE: Before raising rear engine rider, refer to the SERVICE/STORAGE section. Battery must be removed from rear engine rider.



4 Remove the cap screw from the front lift arm, allowing the mower deck to drop downward. The rear deck wheels will rest on rear engine rider's rear tires.

NOTE: While removing the cap screw, watch for a thick spacer washer to fall out from between the lift arm.

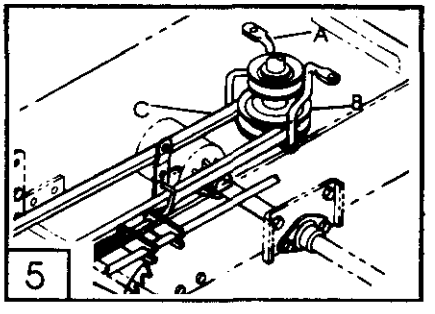
A Cap Screw
B Front Hanger Bracket



5 Remove belt guide from engine pulley.

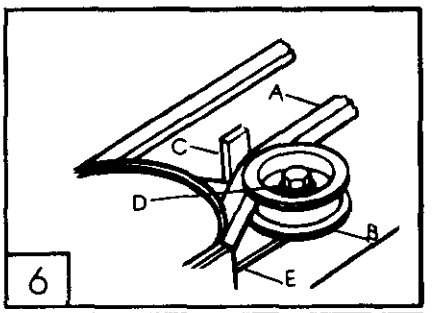
- Remove mower drive belt from lower engine pulley.

A Belt Guide
B Engine Pulley
C Mower Drive Belt



6 Slip the belt between idler pulley and belt guide tab of idler plate. Loosen (DO NOT remove) the cap screw securing the idler pulley to the idler plate.

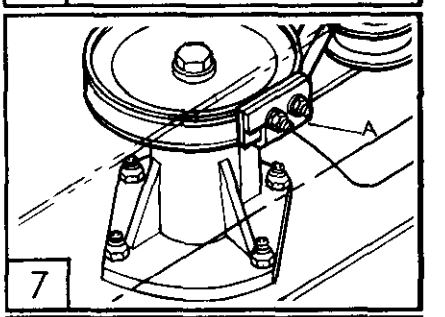
A Belt
B Idler Pulley
C Belt Guide Tab
D Loosen This Cap Screw
E Idler Plate



7 If necessary push downward on the blade pulley brake to enable the belt to clear it.

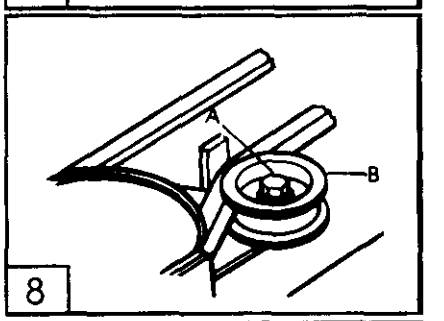
A Blade Pulley Brake

- Remove old belt and replace with new one.
- Be sure belt is properly seated in all pulley grooves.



8 Retighten cap screw on idler pulley.

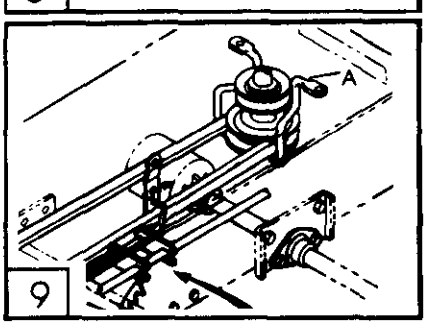
A Cap Screw
B Idler Pulley



9 Reassemble engine pulley belt guide.

A Engine Pulley Belt Guide

- Reassemble front lift arm to deck and carefully lower rear engine rider to the ground. Reinstall battery into rear engine rider.
- Readjust mower drive belt and/or mower drive cable as necessary. Refer to the proper section of ADJUSTMENT AND SERVICING.



TRANSMISSION BELT

ADJUSTMENT

- No adjustment required. This belt is self adjusted by the spring loaded pivot bracket. Periodically check pivot bracket to be sure it is pivoting freely and providing tension.

REPLACEMENT

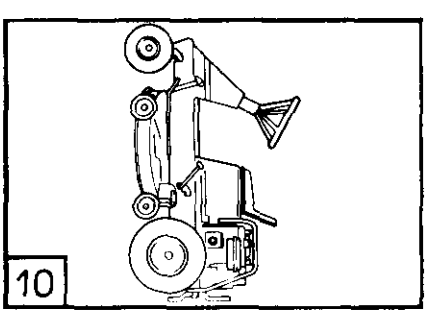
- In the event that belt is slipping or breakage occurs, replacement is necessary. Order the manufacturer's authorized part to ensure using a belt that will meet specific service requirements.

SAFETY WARNING: To avoid personal injury, always turn engine off and remove key from the ignition switch, before making any adjustments. Wait for all movement to stop.

- Move the mower drive lever to the OFF position.
- Position mower height lever in lowest position.

10 Raise the rear engine rider up onto its support bars.

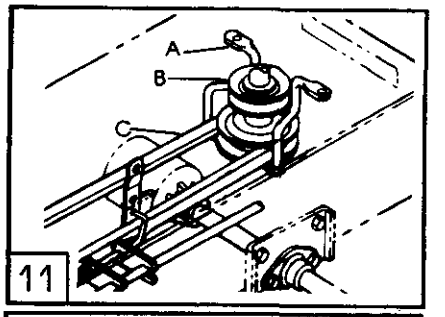
NOTE: Before lifting rear engine rider, refer to the SERVICE/STORAGE section. Battery must be removed from rear engine rider.



11 Remove belt guide from engine pulley.

- Remove mower drive belt from the engine pulley only.

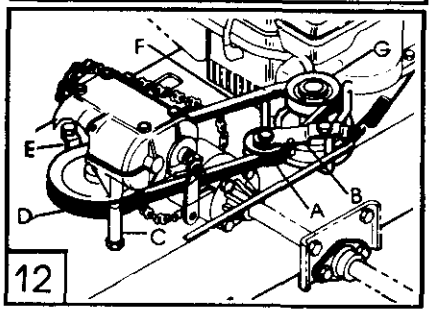
A Belt Guide
B Engine Pulley
C Mower Drive Belt



12 Remove idler pulley from clutch idler arm.

- Remove long belt guide next to transmission pulley.
- Loosen cap screw holding angle belt guide to frame.
- Remove belt from transmission pulley and then from engine pulley.

A Idler Pulley
B Clutch Idler Arm
C Long Belt Guide
D Transmission Pulley
E Angle Belt Guide
F Belt
G Engine Pulley



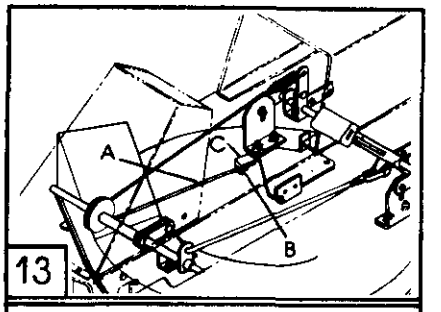
Replace with new belt

MOWER DECK

SAFETY WARNING: To avoid personal injury, always turn engine off and remove key from the ignition switch, before making any adjustments. Wait for all movement to stop.

REMOVAL

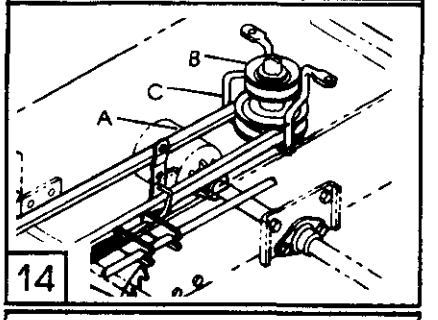
- Apply parking brake.
- Lower mower deck to its lowest position.
- Move mower drive lever to the OFF position.



13 Disconnect mower drive cable at cable bracket. Back the adjusting nut completely off cable's threaded end, and pull the cable out of the bracket.

NOTE: Secure loose end of cable before operating rear engine rider.

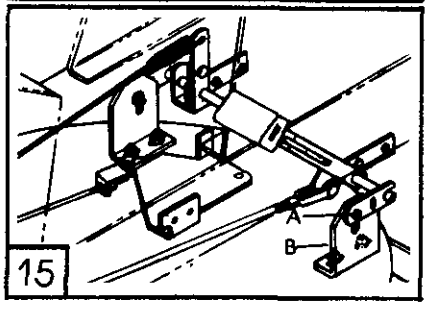
A Mower Drive Cable
B Adjusting Nut
C Bracket



14 Remove mower drive belt from around engine pulley, and pull it forward through engine pulley belt guide.

NOTE: It may be necessary to loosen the mower deck hanger brackets to obtain enough slack for removing belt. Refer to the ADJUSTMENT AND SERVICING section ("Mower Drive Belt").

A Mower Drive Belt
B Engine Pulley
C Engine Pulley Belt Guide



15 Remove the cap screws attaching each mower deck hanger bracket to left and right side pivoting lift arms. Do not lose hardware.

NOTE: Watch for the thick spacer washer to fall out from between lift arms.

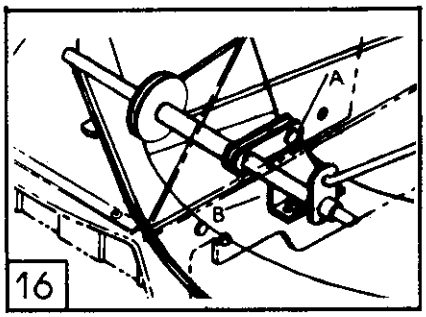
A Remove These Cap Screws
B Hanger Bracket

16 Remove the cap screw attaching the mower deck hanger to the front pivoting lift arm.

NOTE: Watch for the thick spacer washer to fall out from between the front lift arm.

A Remove This Cap Screw
B Mower Deck Hanger

- Release parking brake and push rear engine rider backwards, lifting front wheels over mower deck.



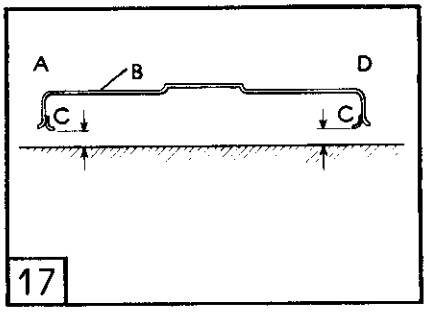
REMOUNTING

- To remount the mower deck to the rear engine rider reverse the (removal) instructions.
- Readjust the mower drive cable. Refer to the ADJUSTMENT AND SERVICING section ("Mower Drive Cable").

MOWER DECK PITCH

- To maintain an optimum blade cutting action, the mower deck should be level with the ground. To check and adjust for this dimension, perform the following check:
- Position rear engine rider on level surface.
- Shut off rear engine rider; remove key.
- Move mower drive lever to OFF position; wait for all movement to stop.
- Apply parking brake, move cutter height lever to full up position. Adjust tire pressure to 10 p.s.i. front and rear.

17 At the front center of mower deck, measure from flat level surface to bottom surface of deck flange. Compare this measurement with the distance from flat level surface to bottom surface of mower deck flange at its back center.

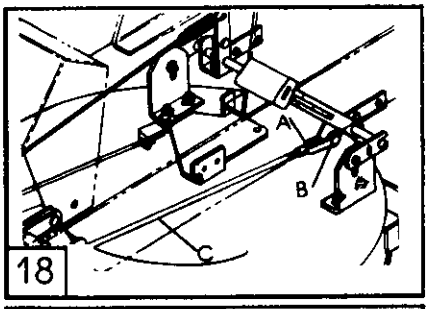


A Front Center
B Mower Deck
C Deck Flange
D Rear Center

NOTE: The front measurement should be the same as the rear measurement.

ADJUSTMENT

18 On left underside of rear engine rider, locate the pitch adjustment clevis.



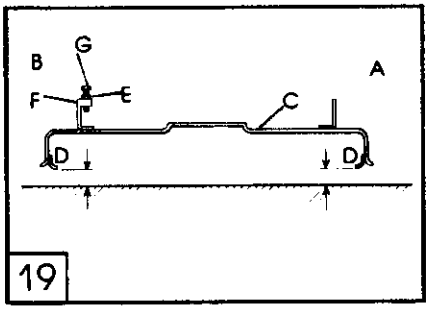
- Remove the clevis pin and remove clevis from inner lift arm. Turning the clevis further onto the pitch/lift rod will lower front of deck-opposite to raise.
- Reattach clevis to inner lift arm, securing with spring clip previously removed.
- Recheck deck pitch at front and readjust as necessary.

A Pitch Adjustment Clevis
B Clevis Pin
C Pitch/Lift Rod

SIDE TO SIDE LEVELING

- After front to back pitch is set check side to side dimensions.

19 Measure the distance from flat level surface to bottom surface of deck flange on right and left hand sides.



- Compare these dimensions. They should be equal.
- If adjustment is required, loosen locking jam nut on left hand adjustment bracket.
- Turn adjusting screw until deck is level side to side and then retighten locking jam nut.

A Right Side
B Left Side
C Mower Deck
D Deck Flange
E Locking Jam Nut
F Adjustment Bracket
G Adjusting Screw

Rear Engine Rider
ADDITIONAL ASSEMBLY INSTRUCTIONS
For Grass Catcher Models: 62542C, 62544C & 9607446
Keep And Use This Sheet With Your Grass Catcher Operator's Manual

Always refer to your Grass Catcher Operator's Manual for all assembly instructions except for the following:

HARDWARE BAG CONTENTS

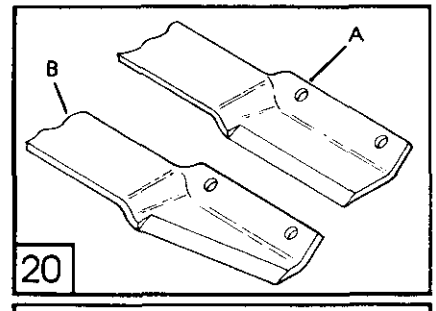
Also included in the hardware bag are (2) blade extensions with bend. For replacement order Part No. 700019.

ASSEMBLY

ASSEMBLE BLADE EXTENSIONS TO BLADE

20 First determine which style blade your rear engine rider has.

A Blade w/Straight Cutting Edge
B Blade w/Angled Cutting Edge



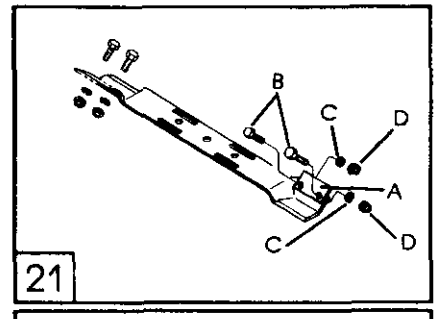
21 If your blade has a straight cutting edge follow these instructions.

- Place blade extension (flat) onto top side of blade.
- Line up holes in extension with holes in blade. Insert two 5/16 x 3/4 hex hd. cap screws through the extension and blade.

NOTE: Be sure to insert cap screws from top side.

- Secure cap screws in place with two 5/16 lock washers and two 5/16 hex cone lock nuts. Torque nuts down to 25 ft./lbs.
- Repeat to assemble extension to other end of blade.

A Blade Extension (Flat)
B 5/16 x 3/4 Hex hd. Cap Screws
C 5/16 Lock Washers
D 5/16 Hex Cone Lock Nuts



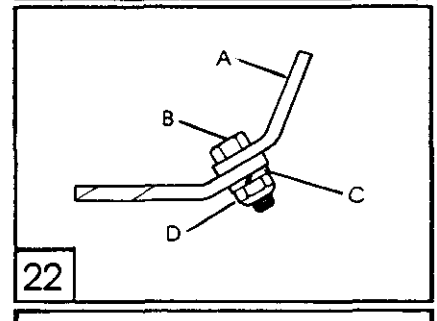
22 If your blade has a angled cutting edge follow these instructions.

- Place blade extension (with bend) onto top side of blade. Be sure blade extension is pointing up.
- Line up holes in extension with holes in blade. Insert two 5/16 x 3/4 hex hd. cap screws through extension and blade.

NOTE: Be sure to insert cap screws from the top side.

- Secure cap screws in place with two 5/16 lock washers and two 5/16 hex cone lock nuts. Torque nuts down to 25 ft./lbs.
- Repeat to assemble extension to other end of blade.

A Blade Extension (w/Bend)
B 5/16 x 3/4 Hex Hd. Cap Screws
C 5/16 Lock Washers
D 5/16 Hex Cone Lock Nuts

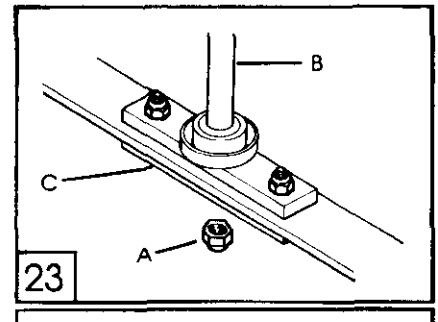


REAR ENGINE RIDER FLAT BLADE INSTALLATION INSTRUCTIONS

Remove battery and gas from Rear Engine Rider. Engage parking brake and place gear shift lever in "1st" gear. Unit may now be lifted onto rear support bars.

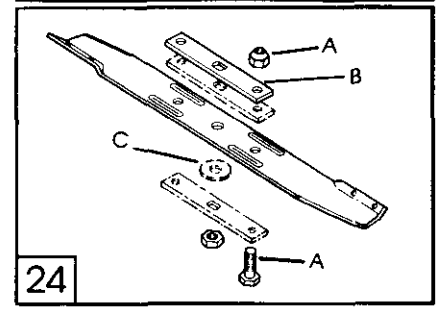
23 Remove nut from spindle shaft and remove blade and support bars as an assembly.

A Nut
B Spindle Shaft
C Blade w/Support Bars



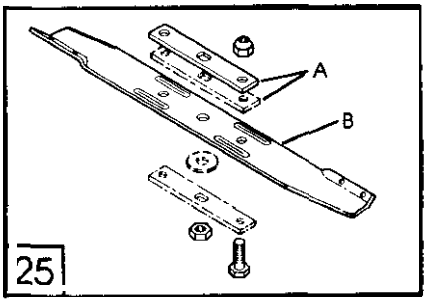
24 Remove cap screws attaching support bars to blades. All hardware will be reused **except** the spacer washer.

A Remove These Cap Screws and Nuts
B Blade Support Bars
C Spacer Washer (Discard)



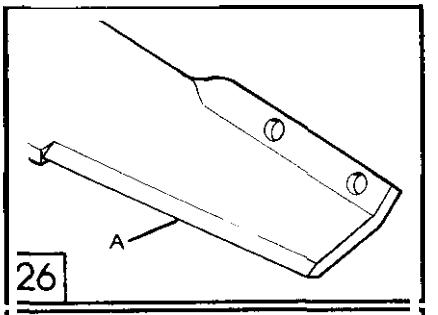
25 Install **both** blade support bars onto spindle shaft, then install new, **"FLAT BLADE"** below them.

A Blade Support Bars
B New "Flat Blade"



26 Be sure blade is mounted with cutting edge **DOWN.**

A Cutting Edge



27 By hand, start spindle shaft nut on spindle shaft, then reinstall and tighten ½" cap screws and nuts holding blade to support bars. Torque to **60 ft./lbs.**

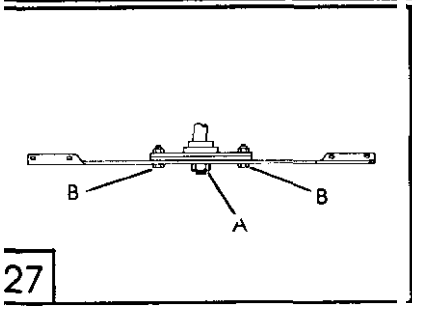
NOTE: The cap screws used to secure blade to support bars are heat treated. Other types of cap screws should not be used as replacements.

- Finish tightening ¾" lock nut on spindle shaft to a torque value of **100 ft./lbs.**

NOTE: At least one thread must appear beyond bottom of nut.

- Carefully place Rider back on it's wheels and prep unit as necessary (battery and gas) to return to service.

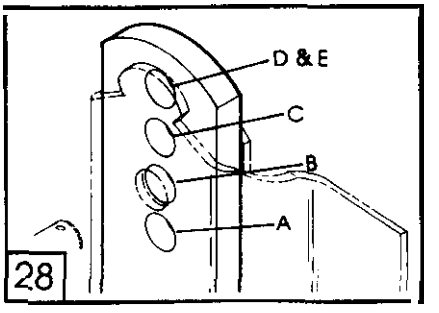
A Spindle Shaft Nut
B ½" Cap Screws



28 GUIDE WHEELS

- For the best mowing job and maximum guide wheel life, use the guide wheel position which corresponds to the cutting height position. Be sure all four guide wheels are positioned the same. Do not use guide wheels to establish cutting height. Use cutting height lever. Wheels must be ⅛" to ¼" off ground

A 1½"
B 2"
C 2½"
D 3"
E 3½"



MOWER BLADE BRAKE

- If mower drive cable is properly adjusted and the brake still does not stop blade, brake must be replaced. See your authorized dealer for replacement.

BRAKE CLUTCH PEDAL/PARKING BRAKE

SAFETY WARNING: To avoid personal injury, always turn engine off and remove key from the ignition switch, before making any adjustments. Wait for all movement to stop.

- If brake clutch pedal does not adequately slow rear engine rider, or hold against movement with parking brake applied, the following adjustments must be made

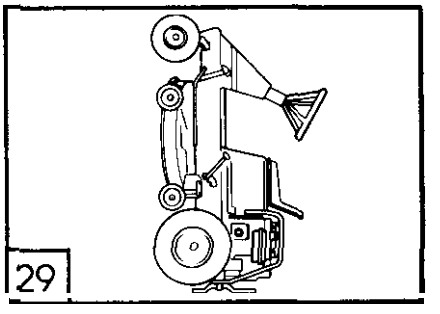
ADJUSTMENT

- Apply the parking brake

29 Raise the rear engine rider up onto its support bars.

NOTE: Battery must be removed. Refer to the SERVICE/STORAGE section.

NOTE: It may be necessary to remove the cap screw holding front hanger bracket on mower deck to front lift arm. Allow mower deck to be lowered down for easier measurement of brake spring. Be sure to reattach front hanger to front lift arm before lowering rear engine rider to the ground.

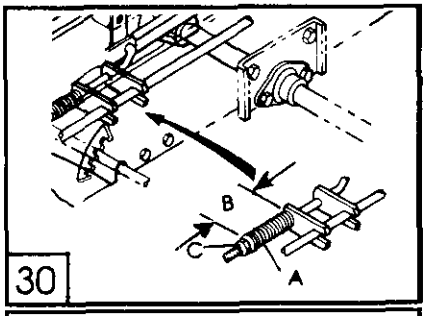


30 Measure the brake spring length. It should be approximately 2⅝"

- Turn cone lock nut clockwise or counterclockwise until spring measures 2⅝".

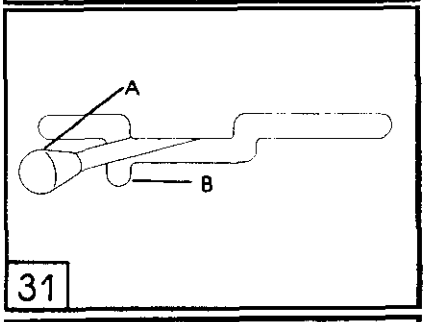
A Brake Spring
B 2⅝" Length
C Cone Lock Nut

- Carefully lower front of rear engine rider to ground.
- Reinstall battery into rear engine rider.



31 Place gear shift lever in the neutral N position.

A Gear Shift Lever
B Neutral

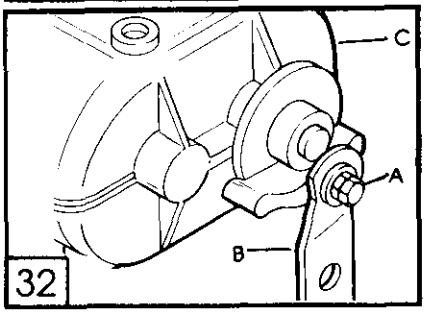


32 At the transmission (located behind operator's seat) locate adjuster nut on brake control arm.

- Turn adjuster nut clockwise to tighten brake.
- To check adjustment, try pushing rear engine rider with parking brake engaged. If the rear wheels do not lock repeat above step.
- Release parking brake. If rear engine rider is hard to push, brake pads are "dragging". Loosen adjuster nut and retest movement.

A Adjuster Nut
B Control Arm
C Transmission

NOTE: If after performing above procedures brake still does not hold properly - consult an authorized dealer for service.



DRIVE CHAIN

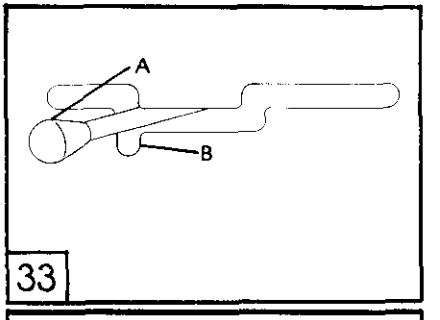
SAFETY WARNING: To avoid personal injury, always turn engine off and remove key from the ignition switch, before making any adjustments. Wait for all movement to stop.

ADJUSTMENT

- It is recommended that drive chain tension be checked after the first 30 minutes of operation, after two hours of operation and make periodic checks thereafter.

33 Move gear shift lever to N position.

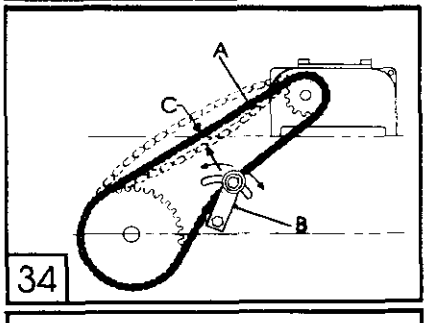
A Gear Shift Lever
B Neutral



34 At the back underside of rear engine rider, locate drive chain and idler sprocket. Check for correct chain tension: There must be ¼ to ½" of chain slack to permit free movement of chain.

- If chain tension must be increased, remove slack by loosening cap screws securing idler bracket.

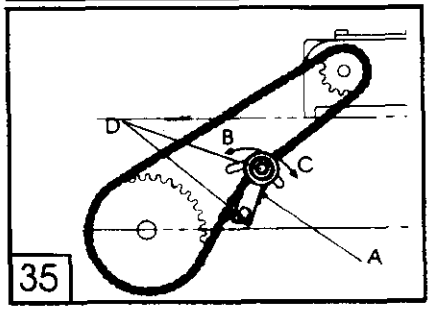
A Drive Chain
B Idler Sprocket
C ¼" To ½" Slack



35 Swing idler sprocket upwards (toward top of rear engine rider) to increase tension, downward to decrease tension.

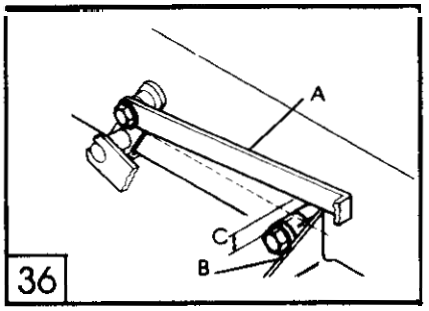
- When chain is in correct adjustment, tighten cap screws to secure idler sprocket position.

A Idler Sprocket
B Increase Tension
C Decrease Tension
D Tighten Cap Screws



MOWER DRIVE CABLE

SAFETY WARNING: To avoid personal injury, always turn engine off and remove key from the ignition switch, before making any adjustments. Wait for all movement to stop.

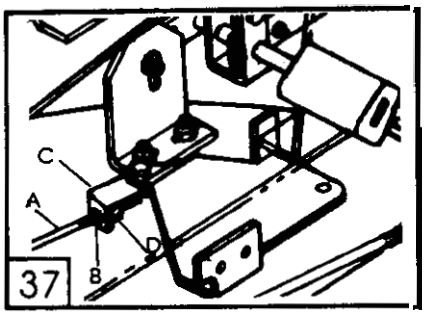


36 To determine the correct amount of mower drive cable tension: Lift mower drive lever upward from its full OFF position (lever resting on back of footrest). There should be no more than ½ to 1" initial movement of lever before resistance in cable can be felt.

A Mower Drive Lever
B Back Of Footrest
C ½"-1" Free Play

ADJUSTMENT

- Lower the mower deck to its lowest position



37 Just behind right side of footrest, on underside of frame, locate threaded adjusting end of mower drive cable attached to cable bracket.

- Loosen and back off jam nut from cable bracket-4 or 5 turns
- Take up slack in cable and increase cable tension by turning adjusting nut (on opposite side of bracket) further onto end of cable.
- Repeat check for correct amount of tension.
- After correct amount of tension is attained; tighten jam nut against cable bracket

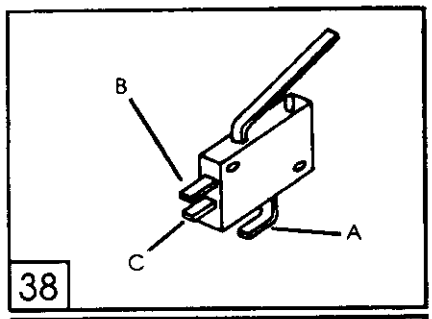
NOTE: If mower drive cable is over tensioned, mower drive belt can not fully disengage from blade pulley and the mower blade brake will not operate properly.

A Mower Drive Cable
B Jam Nut
C Cable Bracket
D Adjusting Nut

38 Without leaf depressed.

Terminal Connections	Function
A to B	Continuity exists.
A to C	Continuity does **not** exist.

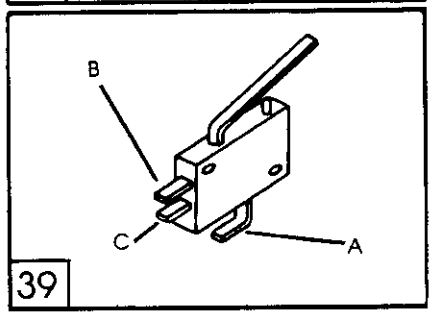
A Terminal "A"
B Terminal "B"
C Terminal "C"



39 With leaf depressed.

Terminal Connections	Function
A to B	Continuity does **not** exist.
A to C	Continuity exists.

A Terminal "A"
B Terminal "B"
C Terminal "C"



Mower Spindle Removal and Replacement —

SAFETY WARNING: To prevent personal injury by avoiding accidental starting of the engine. Turn engine off, wait for all movement to stop and remove ignition key.

- Remove mower deck by following procedures in "MOWER DECK REMOVAL AND REPLACEMENT".

40 Detach blade brake spring from cable bracket at idler bracket. Remove spring from mower deck.

A Brake Spring
B Cable Bracket

- Remove mower drive belt from around blade sheave.
- Stand mower deck up on mower deck gauge wheels and brace or block deck in upright position.

41 Remove bottom center lock nut securing blade to spindle shaft.

A Center Lock Nut
B Blade
C Spindle Shaft

NOTE: It may be necessary to block blade with a piece of wood to prevent blade rotation while loosening or tightening blade.

42 Loosen, do not remove, two capscrews holding blade support bars to blade.

A Cap Screws
B Blade Support Bars

- Remove blade with blade support bars, spinner cap and spacer from bottom of spindle shaft.

43 Holding bottom end of spindle shaft, remove top spindle shaft lock not holding blade sheave to spindle shaft.

A Spindle Shaft Nut
B Blade Sheave

NOTE: When reassembling blade sheave to spindle shaft. Torque top spindle shaft lock nut to 100 ft./lbs.

- Remove blade sheave and spacer from spindle shaft.
- Spindle shaft and upper and lower bearings can now be removed from mower spindle housing.

44 At this time, all parts of mower spindle assembly can be checked for damage or excessive wear. Check following parts and replace if necessary.

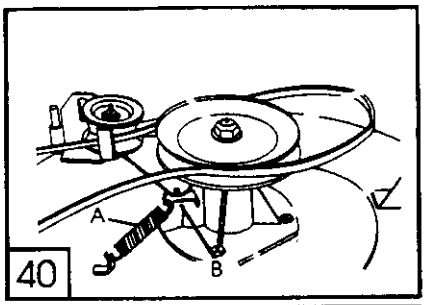
- upper and lower bearings for wear.
- spindle shaft for sharp edges, gouges or stripped threads.
- spindle housing for cracks.
- blade sheave-check belt surfaces for residue, chips or nicks.
- blade sheave brake pad on idler bracket for excessive wear.
- idler pulley for excessive wear or radial play.

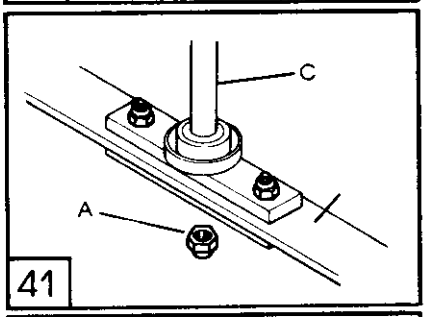
A Upper And Lower Bearings
B Spindle Shaft
C Spindle Housing
D Blade Sheave
E Brake Pad
F Idler Pulley

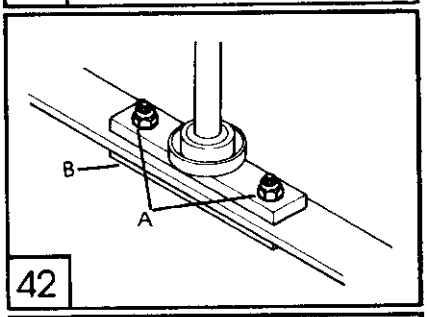
- Reassemble mower deck spindle assembly by reversing procedure and follow special torque procedures for tightening blade.

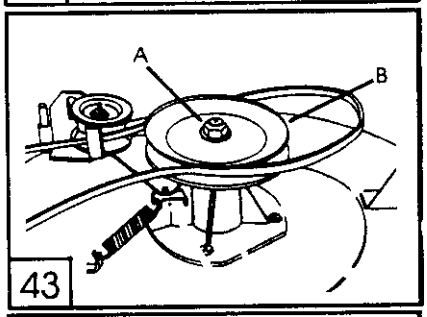
45 Replace lower center lock nut and tighten to a torque of 50 ft./lbs.

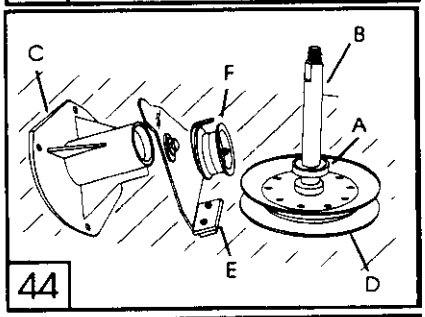
A Lower Center Lock Nut

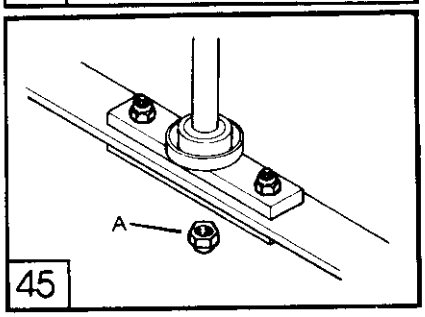










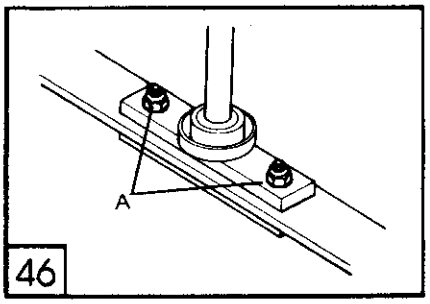


46 Tighten two blade support bar cap screws to a torque of 60 ft./lbs.

A Blade Support Bar Cap Screws

NOTE: The cap screws used to secure blade support bars to blade are Grade 5 type. Other types of cap screws should not be used as replacements.

- Finish tightening lower center lock nut on spindle shaft to a torque of 100 ft./lbs.
- Reassemble mower deck to tractor by reversing procedures in "MOWER DECK REMOVAL AND REPLACEMENT".



TROUBLE SHOOTING

Problem	Component and Causes	Refer To This Section
Engine will not crank to start	Brake Clutch Pedal: Not disengaged	Adjustment and Servicing
	Ignition Switch and Wiring: Switch not on; wire loose or grounded	Wiring Diagram
	Battery: Dead; corroded or loose terminals; low fluid level	Electrical System
	Fuse: Blown	Electrical System
	Safety Interlock System: Procedure not followed; malfunction	Electrical System
Engine cranks, but will not start	Fuel: Empty tank; plugged filter or line	Initial Servicing
	Spark Plug: Fouled broken or loose wire	Engine Instructions
	Ignition Switch and Wiring: Wire Loose or grounded; faulty switch	Wiring Diagram
	Choke: engine cold-not fully choked	Controls and Operation
	Carburetor: Not adjusted	See Authorized Dealer
Dead Battery	Engine: Not charging	See Authorized Dealer
	Battery: Terminal loose or corroded; low fluid level	Electrical System
	Wiring: Wire loose or grounded	Wiring Diagram
Engine runs rough	Carburetor: Not adjusted	See Authorized Dealer
	Engine Speed Control: Operating engine in choked position	Controls And Operation
Engine will not stop	Ignition Switch and Wiring: Faulty switch; loose wire	Wiring Diagram
Engine runs, but unit fails to move	Brake Clutch Pedal: Not releasing	Adjustment and Servicing
	Traction Belt: Broken or loose	Adjustment and Servicing
Brakes do not stop unit	Brakes: Adjustment needed or replacement	Adjustment and Servicing
Unit is hard to push	Gear Shift Lever: Not in neutral position	Controls and Operation
	Brake Clutch Pedal: Not releasing	Adjustment and Servicing
Engine will start with mower engaged, and/ or gear shift in gear	Safety Interlock System: Malfunction	Wiring Diagram
Mower will not operate	Belts: Incorrectly routed; broken or loose	Adjustment and Servicing
Mower Vibrates, cuts ragged	Mower Blade: Needs sharpening; balancing	Adjustment and Servicing

WIRING DIAGRAM